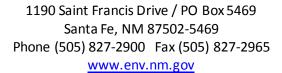


#### **NEW MEXICO**

#### **ENVIRONMENT DEPARTMENT**

Ground Water Quality Bureau





Draft: February 15, 2021

# GROUND WATER QUALITY BUREAU DISCHARGE PERMIT Issued under 20.6.2 NMAC

Facility Name:	San Juan Generating Station

**Discharge Permit Number:** DP-1327

**Facility Location:** 6800 North County Road, Waterflow, NM

Sections 17 and 20, Township 30N, Range 15W

County: San Juan

Permittee: Public Service Company of New Mexico

Mailing Address: Sky Northup

P.O. Box 227

Waterflow, NM 87421

Facility Contact: John Hale

Telephone Number/Email: 505-241-2014/john.hale@pnmresources.com

**Permitting Action:** Renewal and Modification

Permit Issuance Date: DATE
Permit Expiration Date: DATE

NMED Permit Contact: Andrew Romero

Telephone Number/Email: 505-660-8624/andrewc.romero@state.nm.us

MICHELLE HUNTER Date

Chief, Ground Water Quality Bureau New Mexico Environment Department

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#### **ATTACHMENTS**

Discharge Permit Summary

Table of 20.6.2.3103 Standards for Groundwater

Groundwater Discharge Permit Guidance for Synthetically Lined Lagoons – Liner Material and Site Preparation, Revision 0.0, May 2007

New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines, Revision 1.1, March 2011 (Monitoring Well Guidance)

Facility Map

#### I. INTRODUCTION

The New Mexico Environment Department (NMED) issues this groundwater discharge permit Renewal and Modification (Discharge Permit or DP-1327) to the Public Service Company of New Mexico (PNM or Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

NMED's purpose in issuing this Discharge Permit, and in imposing the requirements and conditions specified herein, is to control the discharge of water contaminants from the San Juan Generating Station (SJGS or Facility) in order to protect groundwater and those segments of surface water gaining from groundwater inflow for present and potential future use as domestic and agricultural water supply and other uses, and to protect public health. It is NMED's determination in issuing this Discharge Permit, that the Permittee has met the requirements of Subsection C of 20.6.2.3109 NMAC. The Permittee is responsible for complying with the terms and conditions of this Discharge Permit pursuant to Section 20.6.2.3104 NMAC; failure to do so may result in enforcement action by NMED (20.6.2.1220 NMAC).

The SJGS, a 1,800-megawatt coal-fired electrical generating plant, formerly consisted of four power generation units. PNM shut down Units 2 and 3 in December 2017. The shutdown of the two units resulted in the reduction of approximately one-half of the fresh water usage, which also reduced the volume of wastewater managed and disposed of in the onsite ponds addressed by this Discharge Permit by approximately one-half. The new estimated discharge rate is 1.3 million gallons per day (gpd) compared to the previous rate of 2.6 million gpd.

The Facility is located approximately 15 miles west of Farmington near Waterflow, between Farmington and Shiprock in San Juan County, in Sections 17 and 20, Township 30N, Range 15W. A discharge at the Facility is most likely to affect groundwater at a depth of approximately 10 to 40 feet and having a total dissolved solids (TDS) concentration of approximately 4,000 to 13,000 milligrams per liter.

NMED authorizes discharges potentially affecting groundwater at the SJGS under three separate groundwater Discharge Permits. Activities covered by this Discharge Permit, DP-1327, are limited to wastewater discharges referenced below. Discharges of SJGS generated residual solid wastes placed into the Solid Waste Disposal Cell are regulated under DP-306. The discharge of contaminated groundwater from the Shumway Arroyo Groundwater Recovery System into an evaporation impoundment is regulated under DP-1843.

NMED issued the original DP-1327 to the Permittee on July 31, 2002 and subsequently renewed and modified the Permit on June 5, 2013. The application (i.e., discharge plan) associated with this Discharge Permit consists of the materials submitted by the Permittee dated January 12,

2018 and materials contained in the administrative record prior to issuance of this Discharge Permit.

Described below are the DP-1327 related activities that produce the discharges, the locations of the discharges, and the quantity, quality and flow characteristics of the discharges.

Under DP-1327, the Permittee now discharges up to 1.3 million gallons of wastewater per day from from various process units. Wastewater types generated at the SJGS include process waters, stormwater in coal pile runoff basins, recovery trench return water, miscellaneous process upset-related surface flows, and treated domestic effluent. Process wastewaters include but are not limited to; brine concentrator wastes, pond cleanings, boiler cleanings, sump cleanings, clarifier blow down, blow down from the sulfur dioxide removal system (SDRS), limestone preparation area drains, power block drains including area wash down and pump seal water blowdown, neutralized demineralizer wastes, boiler blow down, and cooling tower blow down.

SJGS wastewater discharges to 17 cells or ponds or basins, i.e., impoundments. These impoudments include the South Evaporation Cells 1-5, Process Pond 1 (A & B), Process Pond 2 (A & B), Process Pond 3 (A, B & C), Runoff Basin Pre-pond, Coal Pile Runoff Basin (1 & 2), and Coal Pile Runoff Basin (3 & 4). The process ponds operate as holding ponds for water prior to reuse within the facility. All process ponds are plumbed to enable the transfer of water from one pond to any other for management of water at the facility. The Coal Pile Runoff Basins and Pre-pond operate to catch stormwater runoff and plant process upsets so the water can be transferred to the plant process ponds for re-use. The evaporation cells are for final disposal through evaporation.

The Permittee discharges up to 150 gpd of domestic wastewater from the onsite guardshack to a septic-tank/leachfield system. This Discharge Permit authorizes the Permittee to maintain up to 150,000 cubic yards of solid materials settled in the bottom of the impoundments for disposal provided that applicable closure and financial assurance requirements in this permit are met.

The discharges addressed in this Discharge Permit may contain water contaminants or toxic pollutants elevated above the standards of Section 20.6.2.3103 NMAC and are not subject to the exemption at Subsection 20.6.2.3105.A NMAC.

The Discharge Permit modification consists of the inclusion of a discharge of up to 200,000 gpd of water from the Shumway Arroyo Groundwater Recovery System (regulated under DP-1843) into the South Evaporation Cells. Additionally, the North Evaporation Pond (NEP) complex has been permanently closed and capped. The groundwater monitoring requirements associated with the NEP monitoring wells remain in this Discharge Permit.

This Discharge Permit has an associated Closure Plan, the intent of which it is to prevent the exceedance of the groundwater protection standards of 20.6.2.3103 NMAC after the Facility, or a portion of the Facility, cease to operate. The Closure Plan was approved by NMED on May 11, 2020. The Closure Plan includes a detailed description of all closure and post-closure maintenance and inspection procedures. The Permittee's obligation to implement the Closure Plan and associated permit requirements survives the termination or expiration of this Discharge Permit. Portions of the Closure Plan may be implemented and completed prior to the cessation of the operation of the Facility.

This Discharge Permit has financial assurance requirements associated with closure of the impoundments associated with the Permit, including a requirement to produce a closure cost estimate intended to sufficiently identify the cost of implementing all aspects of closure as described in the Closure Plan. The Permittee's closure cost estimate was approved by NMED on October 30, 2019. This Discharge Permit requires establishment of a financial assurance instrument intended to cover all closure costs as identified in the closure cost estimate. The Permittee's financial assurance mechanism was approved by NMED on May 11, 2020. This Discharge Permit requires the maintenance of financial assurance during the term of this Discharge Permit and until all closure activities are successfully accomplished.

NMED reserves the right to require a Discharge Permit Modification in the event NMED determines that the Permittee is or may be violating, or is likely to violate in the future, the requirements of 20.6.2 NMAC or the standards of Section 20.6.2.3103 NMAC. NMED reserves this right pursuant to Section 20.6.2.3109 NMAC. An NMED requirement to modify the Discharge Permit may result from a determination by the department that structural controls and/or management practices approved under this Discharge Permit are insufficiently protective of groundwater quality and human health. NMED reserves the right to require the Permittee implement abatement of water pollution and remediate groundwater quality.

The Permittee shall manage the discharges in accordance with all conditions and requirements of this Discharge Permit. NMED's issuance of this Discharge Permit does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

This Discharge Permit may use the following acronyms and abbreviations.

Abbreviation	Explanation	Abbreviation	Explanation
BOD <sub>5</sub>	biochemical oxygen demand	NMSA	New Mexico Statutes
	(5-day)		Annotated
CFR	Code of Federal Regulations	NO <sub>3</sub> -N	nitrate-nitrogen
CFU	colony forming unit	NTU	nephelometric turbidity units
Cl	chloride	QA/QC	Quality Assurance/Quality
			Control

Abbreviation	Explanation	Abbreviation	Explanation
EPA	United States Environmental	TDS	total dissolved solids
	Protection Agency		
gpd	gallons per day	TKN	total Kjeldahl nitrogen
LAA	land application area	total nitrogen	$= TKN + NO_3 - N$
LADS	Land Application Data Sheet(s)	TRC	total residual chlorine
mg/L	milligrams per liter	TSS	total suspended solids
mL	milliliters	WQA	New Mexico Water Quality
			Act
MPN	most probable number	WQCC	Water Quality Control
			Commission
NMAC	New Mexico Administrative	WWTF	Wastewater Treatment
	Code		Facility
NMED	New Mexico Environment		
	Department		

#### II. FINDINGS

In issuing this Discharge Permit, NMED finds the following.

- 1. The Permittee is discharging effluent or leachate from the Facility so that such effluent or leachate may move into groundwater of the State of New Mexico that has an existing concentration of 10,000 mg/L or less of TDS, within the meaning of Subsection A of 20.6.2.3101 NMAC, without exceeding standards of 20.6.2.3103 NMAC for any water contaminant.
- 2. The Discharge Permit allows the Permittee to discharge effluent or leachate from the Facility directly or indirectly into groundwater pursuant to this Discharge Permit and Sections 20.6.2.3000 through 20.6.2.3114 NMAC.
- 3. The discharge from the Facility is not subject to any of the exemptions of Section 20.6.2.3105 NMAC.

#### III. AUTHORIZATION TO DISCHARGE

The Permittee is responsible for ensuring that discharges authorized by this Discharge Permit are consistent with the terms and conditions herein pursuant to 20.6.2.3104 NMAC.

This Discharge Permit authorizes the Permittee to discharge up to 1.3 million gpd of wastewater, process waters, storm water, recovery trench return water and miscellaneous process upset-related surface flows to 17 impoundments for re-use at the Facility and final disposal by evaporation. The Discharge Permit authorizes the Permittee to maintain up to 150,000 cubic yards of solid materials settled in the bottom of the impoundments for disposal. The Discharge

Permit authorizes the Permittee to discharge up to 150 gpd of domestic wastewater to a septic-tank/leachfield system.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection D of 20.6.2.3109 NMAC]

#### IV. CONDITIONS

NMED issues this Discharge Permit for the discharge of water contaminants subject to the following conditions.

#### A. OPERATIONAL PLAN

#	Terms and Conditions
1.	The Permittee shall implement the following operational plan to ensure compliance with Title 20, Chapter 6, Parts 2 and 4 NMAC.  [Subsection C of 20.6.2.3109 NMAC]
2.	The Permittee shall operate in a manner that does not violate standards and requirements of Sections 20.6.2.3101 and 20.6.2.3103 NMAC.  [20.6.2.3101 NMAC, 20.6.2.3103 NMAC, Subsection C of 20.6.2.3109 NMAC]

### **Operating Conditions**

#	Terms and Conditions
3.	The Permittee shall maintain fences around the Facility to restrict access by the general public and animals. The fences shall consist of a minimum of six-foot chain link or field fencing and locking gates. The Permittee shall maintain the fences to serve the stated purpose throughout the term of this Discharge Permit.  [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]
4.	The Permittee shall install and maintain signs indicating that the wastewater in the impoundments is not potable. The Permittee shall post signs at the Facility entrance and other areas where there is potential for public contact with wastewater. The signs shall be printed in English and Spanish and shall remain visible and legible for the term of this Discharge Permit.  [Subsections B and C of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.D]

## **Terms and Conditions** 5. The Permittee shall maintain liners associated with the impoundments to avoid conditions that could affect the liner or the structural integrity of the impoundments. Characterization of such conditions may include the following: erosion damage; animal burrows or other damage; the presence of vegetation including aquatic plants, weeds, woody shrubs or trees growing within five feet of the top inside edge of a sub-grade impoundment, within five feet of the toe of the outside berm of an above-grade impoundment, or within the impoundment itself; the presence of large debris or large quantities of debris in the impoundment; evidence of seepage; or evidence of berm subsidence. The Permittee shall routinely control vegetation growing around the impoundments by mechanical removal in a manner that is protective of the associated liner. The Permittee shall visually inspect the impoundments and surrounding berms on a monthly basis to ensure proper maintenance. In the event that inspection reveals any evidence of damage that threatens the structural integrity of an impoundment berm or liner, or that may result in an unauthorized discharge, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit. The Permittee shall create and maintain a log of all impoundment inspections which describes the date of the inspection, any findings and repairs, and the name of the person responsible for the inspection. The Permittee shall make the log available to NMED upon request. [Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC] The Permittee shall preserve a minimum of two feet of freeboard, i.e., distance between 6. the liquid level in the impoundments and the elevation of the lowest-most top of the impoundment liner.

[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

forth in this Discharge Permit.

7. The Permittee shall operate the recovery trench system continuously, except as maintenance and repairs necessitate.

In the event that the Permittee determines that they cannot preserve two feet of freeboard in the impoundment, the Permittee shall implement the Contingency Plan set

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#	Terms and Conditions
	[20.6.2.3107 NMAC]
8.	The Permittee shall visually inspect the area above the leachfield (disposal system) semi-annually to ensure proper maintenance. The Permittee shall correct any conditions that indicate damage to the disposal system. The Permittee shall ensure conditions corrected include; erosion damage, animal activity/damage, woody shrubs, evidence of seepage, or any other condition indicating damage.
	The Permittee shall keep a log of the inspection findings and repairs that includes a date of the inspection and the name of the inspector. The Permittee shall make the log available to NMED upon request.
	In the event of a failure of the disposal system, the Permittee shall implement the Contingency Plan set forth in this Discharge Permit.
	[Subsections A and D of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
9.	The Permittee shall inspect the septic tank semi-annually for the accumulation of scum and solids. In the event that the scum layer exceeds three inches or the settled solids occupy 30% or more of the tank volume, the contents of the tanks shall be pumped by a septage pumper meeting the qualification requirements identified in Subsection D of 20.7.3.904 NMAC, Liquid Waste Disposal and Treatment Regulations.
	The Permittee shall create and maintain a log of all septic tank inspections which describes the findings, repairs, and removals, the date of the inspection, and the name of the person responsible for the inspection. The Permittee shall make the log available to NMED upon request.
	The Permittee shall maintain a record of solids removal and disposal, including the name of the septage hauler, date of off-site shipment, volume of solids removed, disposal method, and disposal location. The Permittee shall make the record available to NMED upon request.
	[Subsection A of 20.6.2.3107 NMAC, Subsect—on C of 20.6.2.3109 NMAC]

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#### B. MONITORING AND REPORTING

#	Terms and Conditions
10.	The Permittee shall conduct the following monitoring, reporting, and other requirements listed below in accordance with the monitoring requirements of this Discharge Permit.
	[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
11.	METHODOLOGY – Unless otherwise specified by this Discharge Permit, or approved in writing by NMED, the Permittee shall use sampling and analytical techniques that conform with the references listed in Subsection B of 20.6.2.3107 NMAC.  [Subsection B of 20.6.2.3107 NMAC]
12.	Quarterly monitoring - The Permittee shall perform monitoring and other Permit required actions during the following periods and shall submit reports to NMED by the following due dates:  • January 1 <sup>st</sup> through March 31 <sup>st</sup> – due by May 1 <sup>st</sup> ;  • April 1 <sup>st</sup> through June 30 <sup>th</sup> – due by August 1 <sup>st</sup> ;  • July 1 <sup>st</sup> through September 30 <sup>th</sup> – due by November 1 <sup>st</sup> ; and  • October 1 <sup>st</sup> through December 31 <sup>st</sup> – due by February 1 <sup>st</sup> .  [Subsection A of 20.6.2.3107 NMAC]

#### **Monitoring Actions with Implementation Deadlines**

- 13. Within 60 days following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall submit a written groundwater monitoring well location proposal for NMED review and approval. The proposal shall designate the installation locations of the monitoring wells required by Condition 14 of this Discharge Permit. The proposal shall include, at a minimum, the following information.
  - a) A map showing the proposed location of the monitoring wells in relation to the boundary of the source it is intended to monitor.
  - b) A written description of the specific location proposed for the monitoring wells including the distance (in feet) and direction of the monitoring wells from the edge of the source it is intended to monitor. Examples include: 35 feet north-northwest of the northern berm of the synthetically lined impoundment; 45 feet due south of the leachfield; and 30 feet southeast of the re-use area 150 degrees from north.
  - c) A statement describing the groundwater flow direction beneath the Facility, and documentation and/or data supporting the determination.

The Permittee must have NMED's approval of all monitoring well locations prior to their installation.

#### [Subsection A of 20.6.2.3107 NMAC]

- 14. Within 120 days of the issuance date of this Discharge Permit (**by DATE**), the Permittee shall install the following new monitoring wells.
  - a) One monitoring well (NEP6) intended to detect impacts from North Evaporation Cell 1.
  - b) One monitoring well (NEP7) intended to detect impacts from North Evaporation Cell
     2.

The Permittee shall complete the well(s) in accordance with the attachment titled New Mexico Environment Department Ground Water Quality Bureau Monitoring Well Construction and Abandonment Guidelines, Revision 1.1, March 2011 (Monitoring Well Guidance) [or alternative methods submitted for approval].

Unless otherwise noted in this Discharge Permit, the requirement to install a monitoring well downgradient of a source is <u>not</u> contingent upon construction of the Facility, or discharge of wastewater from the Facility.

#### [Subsection A of 20.6.2.3107 NMAC]

15. Within 150 days following the issuance date of this Discharge Permit (**by DATE**), the Permittee shall perform a professional survey of all newly installed groundwater monitoring wells approved by NMED for Discharge Permit monitoring purposes. The survey shall be tied or referenced to a U.S. Geological Survey (USGS) or other permanent benchmark. Survey data shall include northing, easting and elevation to the nearest one-hundredth of a foot or shall be in accordance with the "Minimum Standards for Surveying in New Mexico" (12.8.2 NMAC). The survey shall bear the seal and signature of a licensed New Mexico professional surveyor (pursuant to the New Mexico Engineering and Surveying Practice Act and the rules promulgated under that authority).

The Permittee shall utilize the survey to establish an elevation at the top-of-casing, with a permanent marking indicating the point of elevation.

The Permittee shall measure the depth-to-most-shallow groundwater to the nearest one-hundredth of a foot in all surveyed wells [and referenced to mean sea level], and the data shall be used to develop a groundwater elevation contour, i.e., potentiometric surface, map showing the location of all monitoring wells and the direction and gradient of groundwater flow in the uppermost aquifer below the Facility. The Permittee shall submit the data and groundwater elevation contour map to NMED within 30 days of survey completion.

[Subsection A of 20.6.2.3107 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]

16. The Permittee shall sample Facility wastewater for the presence of perfluorinated chemicals (PFCs).

Within 2.5 years of the issuance date of this Discharge Permit (by **DATE**), the Permittee shall collect a composit sample from the South Evaporation Ponds that is representative of the discharge contained therein. The Permittee shall analyze the sample for the following PFCs:

- perfluorohexane sulfonic acid (PFHxS) (CAS 355-46-4)
- perfluorooctane sulfonate (PFOS) (CAS 1763-23-1)
- perfluorooctanoic acid (PFOA) (CAS 335-67-1)

The Permittee shall properly collect, prepare, preserve, transport, and analyze the sample in accordance with ASTM D7979-17, or an equivalent method that uses liquid chromatography and tandem mass spectrometry (LC/MS/MS). The reporting limit shall be low enough to identify whether the combined concentration of the perfluorinated chemicals is less than the Tap Water Screening Level identified in the *NMED Risk Assessment Guidance for Site Assessments and Investigations*, Table A-1 available on the NMED Hazardous Waste Bureau's website under Guidance Documents. The Permittee shall take appropriate measures to avoid cross contamination while collecting and transporting the sample. The selected laboratory should be able to provide guidance that ensures sample integrity. The Permittee shall submit a copy of the laboratory report, including analytical results, the QA/QC summary, and the Chain of Custody to NMED within 30 days of laboratory report receipt.

[Subsection H of 20.6.2.3109 NMAC, Subsection A of 20.6.2.3107 NMAC]

#### **Groundwater Monitoring Conditions**

#	Terms and Conditions	
17.	The Permittee shall perform quarterly groundwater sampling in the following groundwater monitoring wells, boreholes, and piezometer and analyze the samples for the following analytes.	
	• arsenic (As) •	molybdenum (Mo)
	• boron (B) •	nickel (Ni)
	• cadmium (Cd) •	potassium (K)
	calcium (Ca)	selenium (Se)

#	Terms and Conditions	
	chloride (CI)	sodium (Na)
	• chromium (Cr)	uranium (U)
	• cobalt (Co)	carbonate (CO <sub>3</sub> )
	• copper (Cu)	bicarbonate (HCO <sub>3</sub> )
	• fluoride (F)	nitrate (NO <sub>3</sub> )
	• iron (Fe)	sulfate (SO <sub>4</sub> )
	<ul><li>lead (Pb)</li></ul>	total dissolved solids (TDS)
	<ul><li>magnesium (Mg)</li></ul>	pH
	<ul><li>manganese (Mn)</li></ul>	
	<ul> <li>a) MW-Westwater, located hydrolog and areas affected by mining;</li> </ul>	gically upgradient of both the generating station
	b) KPC, screened in, and representat Formation;	ive of, the aquifer contained in the Pictured Cliffs
	<ul> <li>c) QNT, located hydrologically upgra affected by mining;</li> </ul>	adient of both the generating station and areas
	d) M1, (Borehole to Pictured Cliffs For Process Pond 1;	rmationnormally dry), to intercept leakage from
		rmationnormally dry), to intercept leakage from
	f) M3.1, located hydrologically dowr	gradient of Process Pond 3;
	g) M3.2, located hydrologically dowr	gradient of Process Pond 3;
	h) M3.3, located hydrologically dowr	gradient of Process Pond 3;
	<ul> <li>i) QAL1, located in a buried surface south process contaminant source</li> </ul>	drainage and hydrologically downgradient of the s;
	<ul> <li>j) QAL2, located in a buried surface central process contaminant source</li> </ul>	drainage and hydrologically downgradient of the es;
	k) QAL3, located in a buried surface north process contaminant source	drainage and hydrologically downgradient of the s;
	<ol> <li>QAL4, located in a buried surface Process Pond 2;</li> </ol>	e drainage and hydrologically downgradient of
	·	ngradient of south process contaminant sources erin the Duck Pond Arroyo;
		ormationnormally dry), to intercept leakage from
		ormationnormally dry), to intercept leakage from
	•	s Formation—contains groundwater), to detect
	·	s Formation—contains groundwater), to detect

#	Terms and Conditions
	<ul> <li>impacts from North Evaporation Cells;</li> <li>r) NEP5 (Borehole to Pictured Cliffs Formationnormally dry), to intercept leakage from North Evaporation Cell 2;</li> <li>s) NEP6, intended to detect impacts from North Evaporation Cell 1.</li> <li>t) NEP7, intended to detect impacts from North Evaporation Cell 2.</li> <li>u) CBI, to detect impacts from Coal Pile 3&amp;4 Runoff Basin;</li> <li>v) CBII, to detect impacts from Coal Pile 3&amp;4 Runoff Basin;</li> <li>w) RTWS1, to be located within recovery trench;</li> <li>x) RTWE2, to be located 200 feet hydrologically upgradient of recovery trench;</li> <li>y) RTWW2, to be located 100 feet hydrologically downgradient of recovery trench; and</li> <li>z) PZ-RTWW3, located 300-400 feet hydrologically downgradient of recovery trench (depth-to-ground water measurement only).</li> </ul>
	The Permittee shall perform groundwater sample collection, preservation, transport and analysis according to the following procedures.  a) Measure the depth-to-most-shallow groundwater from the top of the well casing to the nearest one-hundredth of a foot.  b) Purge three well volumes of water from the well prior to sample collection.  c) Obtain samples from the well for analysis.  d) Properly prepare, preserve and transport samples.  e) Analyze samples in accordance with the methods authorized in this Discharge Permit.  The Permittee shall submit the depth-to-most-shallow groundwater measurements and the laboratory analytical data results, including the laboratory QA/QC summary report for each well, and a Facility layout map showing the location and number of each well to NMED in the quarterly monitoring reports.  [Subsection A of 20.6.2.3107 NMAC]
18.	The Permittee shall develop a groundwater elevation contour map, i.e., potentiometric surface map on a quarterly basis using the top of casing elevation data from the monitoring well survey and the most recent depth-to-most-shallow groundwater measurements, referenced to mean sea level, obtained during the groundwater sampling required by this Discharge Permit.  The groundwater elevation contour map shall depict the groundwater flow direction based on the groundwater elevation contours. The Permittee shall estimate groundwater elevations between monitoring well locations using common interpolation methods. The Permittee shall use a contour interval appropriate to the data, but shall not be greater than two feet. Groundwater elevation contour maps shall use arrows to depict the groundwater flow direction based on the orientation of the groundwater

#	Terms and Conditions
	elevation contours, and shall locate and identify each monitoring well and contaminant source.
	The Permittee shall submit a groundwater elevation contour map in the quarterly monitoring reports.
	[Subsection A of 20.6.2.3107 NMAC]

## **Facility Monitoring Conditions**

#	Terms and Conditions
19.	The Permittee shall determine the monthly volume of wastewater discharged by the Facility by recording the discharged wastewater volumes at the following locations by the indicated methods:
	<ul> <li>Process Pond 3A inlet—record readings for the one inlet line totalizing flow meter (this discharge represents volumes discharged to all process ponds)</li> <li>South Evaporation Cells—record readings for the three inlet line totalizing flow meters that discharge into these cells</li> </ul>
	<ul> <li>Coal Pile Runoff Basins 3 and 4—record readings for the one transfer line totalizing flow meter to Process Pond 3C</li> <li>Coal Pile Runoff Basins—Use standard engineering methods to estimate discharge volumes into these basins</li> </ul>
	The Permittee shall record the volume of wastewater transferred into the listed locations by truck or other method.
	The Permittee shall record the monthly discharge volumes for each location listed above. The sum of the monthly discharges for each location listed above shall represent the Facility discharge. The Permittee shall submit monthly discharge volumes in the quarterly monitoring reports.
	[20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
20.	All flow meters shall be capable of having their accuracy verified under working (i.e., real-time in-the-field) conditions. The Permittee shall develop a field verification method for each flow meter and shall utilize that method to check the accuracy of each respective meter. The Permittee shall perform field calibrations upon repair or replacement of a flow measurement device and, at a minimum, on an annual basis.

#### **#** Terms and Conditions

The Permittee shall ensure each flow meter is calibrated to its manufacturer's recommended specification which shall be no less accurate than plus or minus 10 percent of actual flow, as measured under field conditions. An individual knowledgeable in flow measurement shall perform field calibration and the installation/operation of the device in use. The Permittee shall prepare a flow meter calibration report for each flow measurement device calibration event. The flow meter calibration report shall include the following information.

- a) The location and meteridentification.
- b) The method of flow meter field calibration employed.
- c) The measured accuracy of each flow meter prior to adjustment indicating the positive or negative offset as a percentage of actual flow as determined by an in-field calibration check.
- d) The measured accuracy of each flow meter following adjustment, if necessary, indicating the positive or negative offset as a percentage of actual flow of the meter.
- e) Any flow meter repairs made during the previous year or during field calibration.
- f) The name of the individual performing the calibration and the date of the calibration.

The Permittee shall maintain records of flow meter calibration(s) at a location accessible for review by NMED during Facility inspections.

[Subsection A of 20.6.2.3107 NMAC, Subsections C and H of 20.6.2.3109 NMAC]

21. The Permittee shall visually inspect flow meters on a monthly basis for evidence of malfunction. The Permittee shall maintain a log of the inspections that includes a date of the inspection, findings and repairs and the name of the inspector. The Permittee shall make the log available to NMED upon request.

If a visual inspection indicates a flow meter is not functioning as required by this Discharge Permit, the Permittee shall repair or replace the meter within 30 days of discovery. For repaired meters, the Permittee shall submit a report to NMED with the next monitoring report following the repair that includes a description of the malfunction; a statement verifying the repair; and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit. For replacement meters, the Permittee shall submit a report to NMED with the next monitoring report following the replacement that includes a design schematic for the device and a flow meter field calibration report completed in accordance with the requirements of this Discharge Permit.

[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]

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22.	The Permittee shall perform monthly inspections of the South Evaporation Cells' French drain leak detection systems. The Permittee shall submit summaries of inspection reports in the quarterly monitoring reports.
	[20.6.2.3107 NMAC]
23.	Once prior to the expiration date of this Discharge Permit, NMED shall have the option to require the Permittee to temporarily remove the dedicated pump from each monitoring well to provide access for a complete well inspection by NMED personnel. NMED shall establish the inspection date and provide at least 60 days notice to the permittee by certified mail. The Permittee shall remove any existing dedicated pumps at least 48 hours prior to NMED inspection to allow adequate settling time for sediment agitated from pump removal.  [20.6.2.3107 NMAC]
24.	The Permittee shall sample wastewater in each impoundment on a semi-annual basis. The Permittee shall obtain one composite liquid sample from each impoundment and from Cooling Towers 1 and Cooling Tower 3.  The Permitee shall sample and analyze wastewater for the following parameters.  • arsenic (As) • molybdenum (Mo) • boron (B) • nickel (Ni) • cadmium (Cd) • potassium (K) • calcium (Ca) • selenium (Se) • chloride (Cl) • sodium (Na) • chromium (Cr) • uranium (U) • cobalt (Co) • carbonate (CO <sub>3</sub> ) • copper (Cu) • bicarbonate (HCO <sub>3</sub> ) • liquoride (F) • nitrate (NO <sub>3</sub> ) • iron (Fe) • sulfate (SO <sub>4</sub> ) • lead (Pb) • total dissolved solids (TDS) • magnesium (Mg) • pH • manganese (Mn)  The Permittee shall ensure the samples are properly prepared, preserved, transported and analyzed in accordance with the methods authorized in this Discharge Permit. The Permittee shall submit the laboratory analytical data results, including the QA/QC summary and Chain of Custody to NMED in the monitoring reports due by May 1 <sup>st</sup> and November 1 <sup>st</sup> each year.

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	[20.6.2.3107 NMAC]

#### C. CONTINGENCY PLAN

## **Terms and Conditions** 25. In the event that groundwater monitoring indicates that groundwater exceeds a groundwater protection standard identified in Section 20.6.2.3103 NMAC in a monitoring well with no previous exceedances of the chemical constituent at the date of issuance of this Discharge Permit, i.e., (DATE), the Permittee shall collect a confirmatory sample from the monitoring well within 15 days of receipt of the initial sampling results to confirm the initial sampling results. Within 60 days of confirmation of groundwater contamination, the Permittee shall submit to NMED a Corrective Action Plan (CAP) that proposes, at a minimum, contaminant source control measures and an implementation schedule. The Permittee shall the CAP as approved by NMED. Once this groundwater exceedance response condition is invoked (whether during the term of this Discharge Permit, or after the term of this Discharge Permit and prior to the completion of the Discharge Permit closure plan requirements), this condition shall apply until the Permittee has fulfilled the requirements of this condition and groundwater monitoring confirms for a minimum of eight (8) consecutive quarterly samples that groundwater does not exceed the standards of Section 20.6.2.3103 NMAC. Violation of the groundwater standard beyond 180 days after the confirmation of groundwater contamination may cause NMED to require the Permittee to abate water pollution consistent with the requirements and provisions of Section 20.6.2.4101, Section 20.6.2.4103, Subsections C and E of 20.6.2.4106, Section 20.6.2.4107, Section 20.6.2.4108 and Section 20.6.2.4112 NMAC, including the requirement to submit a financial assurance plan which covers the estimated costs to conduct the actions required by an associated abatement plan pursuant to Subsection C of 20.6.2.4104 NMAC. [Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC] 26. In the event that information available to NMED indicates that a well is not constructed in a manner consistent with the attachment titled "Monitoring Well Guidance"; contains insufficient water to effectively monitor groundwater quality; or is not completed in a

#### **#** Terms and Conditions

manner that is protective of groundwater quality, the Permittee shall install a replacement well(s) within 120 days following notification from NMED.

The Permittee shall survey the replacement monitoring well(s) within 30 days following well completion.

The Permittee shall install replacement wells at locations approved by NMED and completed in accordance with the Monitoring Well Guidance. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map to NMED within 60 days following well completion.

The Permittee shall properly plug and abandon the monitoring well requiring replacement upon completion of the replacement monitoring well. The Permittee shall complete the well plugging and abandonment, and shall document the abandonment procedures, in accordance with the Monitoring Well Guidance and all applicable local, state, and federal regulations. The Permittee shall submit well abandonment documentation to NMED within 60 days of completion of well plugging activities.

#### [Subsection A of 20.6.2.3107 NMAC]

27. In the event that groundwater flow information obtained pursuant to this Discharge Permit indicates that a monitoring well is not appropriately located, e.g., not hydrologically downgradient of the discharge location it is intended to monitor, the Permittee shall install a replacement well within 120 days following notification from NMED. The Permittee shall survey the replacement monitoring well within 30 days of its installation.

The Permittee shall install replacement wells at locations approved by NMED prior to installation and completed in accordance with the Monitoring Well Guidance. The Permittee shall submit construction and lithologic logs, survey data and a groundwater elevation contour map within 30 days following well completion.

#### [Subsection A of 20.6.2.3107 NMAC]

28. In the event that an inspection reveals significant damage has occurred or is likely to affect the structural integrity of a impoundment liner or its ability to contain contaminants, the Permittee shall propose the repair or replacement of the impoundment liner by submitting a Corrective Action Plan (CAP) to NMED for approval. The Permittee shall ensure the CAP is submitted to NMED within 30 days after discovery of the damage or following notification from NMED that significant liner damage is evident. The Permittee shall ensure the CAP includes a schedule for completion of

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	corrective actions. The Permittee shall initiate implementation of the CAP following approval by NMED.
	[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]
29.	In the event that a minimum of two feet of freeboard cannot be preserved in the impoundments, the Permittee shall take actions to restore the required freeboard.
	In the event that two feet of freeboard cannot be restored within a period of 72 hours following discovery, the Permittee shall propose actions to restore two feet of freeboard by submitting a short-term Corrective Action Plan (CAP) to NMED for approval. Examples of short-term corrective actions include the pumping and hauling of excess wastewater from the impoundment or reducing the volume of wastewater discharged to the impoundment. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and is submitted within 15 days following the date when the exceedance was discovered. The Permittee shall implement the CAP following approval by NMED.  In the event that the short-term corrective actions failed to restore two feet of freeboard, the Permittee shall propose permanent corrective actions in a long-term CAP submitted to NMED within 90 days following failure of the short-term CAP. Examples include the installation of an additional storage impoundment or a significant/permanent reduction in the volume of wastewater discharged to the impoundment. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions and that implementation of the CAP is initiated following NMED approval.
	[Subsection A of 20.6.2.3107 NMAC]
30.	In the event that leachate is discovered in the French drain leak detection systems of the South Evaporation Cells, the Permittee shall sample the leachate and analyze it for: arsenic (As), boron (B), cadmium (Cd), calcium (Ca), chloride (Cl), chromium (Cr), cobalt (Co), copper (Cu), fluoride (F), iron (Fe), lead (Pb), magnesium (Mg), manganese (Mn), molybdenum (Mo), nickel (Ni), potassium (K), selenium (Se), sodium (Na), uranium (U), carbonate (CO <sub>3</sub> ), bicarbonate (HCO <sub>3</sub> ), nitrate (NO <sub>3</sub> ), sulfate (SO <sub>4</sub> ), total dissolved solids (TDS), and pH.
	If the analytical results demonstrate that the leachate is chemically similar to the wastewater in the impoundments, the Permittee shall submit the analytical results along with a Corrective Action Plan (CAP) for NMED approval within 30 days of receiving analytical results.

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	[20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
31.	In the event a leakage is detected in the monitoring wells associated with the Process Ponds, the Runoff Basin Pre-pond or the Coal Pile Runoff Basins, the Permittee shall submit a Corrective Action Plan to NMED within 30 days of discovering the leak.  [20.6.2.3107 NMAC, 20.6.2.3109 NMAC]
32.	In the event that an inspection of the leachfield reveals a system failure, the Permittee shall implement the following Contingency Plan.  a) Within 24 hours following the discovered failure, the Permittee shall:  i) Notify NMED of the failure in accordance with the notification requirements described in the Contingency Plan for unauthorized discharges; and  ii) Restrict public access to the area.  b) The Permittee shall conduct a physical inspection of the disposal system to identify additional potential failures and record them in the inspection log.  c) The Permittee shall propose actions to address the failure and methods of correction by submitting a Corrective Action Plan (CAP) to NMED for approval within 15 days following the discovered failure. The Permittee shall ensure the CAP includes a schedule for completion of corrective actions. The Permittee shall initiate implementation of the CAP following NMED approval.
33.	<ul> <li>[Subsection A of 20.6.2.3107 NMAC, Subsection C of 20.6.2.3109 NMAC]</li> <li>In the event that a release occurs that is not authorized under this Discharge Permit (commonly known as a "spill"), the Permittee shall take measures to mitigate damage from the unauthorized discharge and initiate the notifications and corrective actions required in Section 20.6.2.1203 NMAC and summarized below.</li> <li>Within 24 hours following discovery of the unauthorized discharge, the Permittee shall verbally notify NMED and provide the following information.</li> <li>a) The name, address, and telephone number of the person or persons in charge of the Facility, as well as of the owner and/or operator of the Facility.</li> <li>b) The name and address of the Facility.</li> <li>c) The date, time, location, and duration of the unauthorized discharge.</li> <li>d) The source and cause of unauthorized discharge, including its estimated chemical composition.</li> <li>f) The estimated volume of the unauthorized discharge.</li> <li>g) Any actions taken to mitigate immediate damage from the unauthorized discharge.</li> </ul>

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Within <u>one week</u> following discovery of the unauthorized discharge, the Permittee shall submit written notification to NMED providing the information listed above and any pertinent updates.

Within <u>15 days</u> following discovery of the unauthorized discharge, the Permittee shall submit a Corrective Action Plan (CAP) to NMED describing any corrective actions previously taken and corrective actions to be taken relative to the unauthorized discharge. The CAP shall include the following information.

- a) A description of proposed actions to mitigate damage from the unauthorized discharge.
- b) A description of proposed actions to prevent future unauthorized discharges of this nature.
- c) A schedule for completion of proposed actions.

In the event that the unauthorized discharge causes or may with reasonable probability cause water pollution in excess of the standards and requirements of Section 20.6.2.4103 NMAC, and the water pollution will not be abated within 180 days after notice is required to be given pursuant to Paragraph (1) of Subsection A of 20.6.2.1203 NMAC, the Permittee may be required to abate water pollution pursuant to Sections 20.6.2.4000 through 20.6.2.4115 NMAC, including the requirement to submit a financial assurance plan which covers the estimated costs to conduct the actions required by an associated abatement plan pursuant to Subsection C of 20.6.2.4104 NMAC.

The Permittee shall not construe anything in this condition as relieving them of the obligation to comply with all requirements of Section 20.6.2.1203 NMAC.

#### [20.6.2.1203 NMAC]

34. In the event that NMED or the Permittee identifies any failures of the discharge plan, i.e., the application, or this Discharge Permit not specifically noted herein, NMED may require the Permittee to submit a Corrective Action Plan and a schedule for completion of corrective actions to address the failure(s). Additionally, NMED may require a discharge permit modification to achieve compliance with 20.6.2 NMAC.

[Subsection A of 20.6.2.3107 NMAC, Subsection E of 20.6.2.3109 NMAC]

## D. CLOSURE PLAN

## **Permanent Facility Closure Conditions**

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35.	The Permittee shall implement the approved Closure Plan (CP). The Permittee shall provide an updated CP with the application for Discharge Permit renewal. The Permittee shall ensure that the updated CP describes the closure activities which have been completed and the remaining procedures necessary to close all evaporation cells, process ponds, coal pile runoff basins, and any other wastewater related infras tructure. The Permittee shall ensure that the CP addresses post-closure care, including the continued maintenance of the impoundment cover systems, including each impoundment's earthen cover, the associated stormwater conveyance system, and associated vegetation; groundwater monitoring, the operation and maintenance of the associated groundwater monitoring system. The Permittee shall ensure that the updated CP includes an operational schedule detailing the sequence and the allotted time necessary for completion of all procedures described in the CP. The Permittee shall ensure the updated CP is sufficiently detailed to produce an accurate estimate of the costs associated with all closure procedures.  [Subsection A of 20.6.2.3017]
36.	Cover System Evaluation: The Permittee's CP shall ensure appropriate evaluation of the impoundment cover systems by, at a minimum, including a commitment to perform quarterly erosion inspections, performance of an erosion inspection after a 24-hour rain event totaling greater than one inch, and performance of an annual vegetation inspection. Annual vegetation inspections shall address vegetation density and diversity measurements.  The Permittee's impoundment cover systems evaluations shall demonstrate a minimum of 12 years of cap stabilization, including vegetation establishment without additional seed application and minimal erosion of the cover system during the period.  [Subsection A of 20.6.2.3017]
37.	Groundwater Monitoring Maintenance: The Permittee's CP shall ensure that the groundwater monitoring system will remain in place and serve its intended function after the cessation of Facility operations and until the Permittee meets the WQCC groundwater standards or background concentrations for at least eight consecutive quarters, or until NMED determines that long-term groundwater monitoring is no longer required. The Permittee shall submit all post-closure groundwater monitoring data and results to NMED in the quarterly monitoring reports.

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	Upon approval from NMED that the operation and maintenance of the groundwater monitoring system may cease, the Permittee shall plug and abandon all associated groundwater monitoring wells in accordance with the approved CP and the Monitoring Well Guidance.
	[Subsection A of 20.6.2.3017]
38.	Closure Reporting: The Permittee shall submit an annual closure progress report (Closure Report) to NMED identifying all completed closure activities performed in accordance with the approved CP. The Closure Report shall include results from the impoundment cover systems inspections performed during the period. The Permittee shall submit the Closure Report to NMED no later than August 1 <sup>st</sup> of each year.  [Subsection A of 20.6.2.3017]
39.	Closure Cost Estimate: The Permittee shall provide an updated closure cost estimate with the application for Discharge Permit renewal for the purpose of ensuring financial assurance for the closure of all evaporation cells, process ponds, coal pile runoff basins, and any other wastewater related infrastructure. The Permittee shall ensure that the updated closure cost estimate sufficiently covers the cost of implementing all aspects of closure as described in the updated CP required at Condition 35.  The Permittee shall ensure that an updated closure cost estimate addresses increased costs due to inflation. The updated closure cost estimate shall address any revisions to the approved CP due to completed closure activities, the availability of new technologies, or other information causing a change to associated closure costs.  The updated closure cost estimate shall be based on the cost of hiring a third party to conduct closure activities. The closure cost estimate shall include third-party direct costs, contingency costs in the amount of 15 percent of the direct costs, the cost of an independent project manager and contract administration, and NMED oversight and administration costs, including indirect costs. The updated closure cost estimate shall sufficiently perform all closure activities at any time following five years from the time the cost estimate is revised.  Proposed updated closure cost estimates are subject to NMED's approval. The Permittee shall keep the approved CP and closure cost estimates in the Facility operating record at the Facility after the commencement of closure.  [Subsection A of 20.6.2.3017]

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40. Financial Assurance: The Permittee shall maintain, and if necessary, update financial assurance with NMED to cover costs associated with closure of all evaporation cells, process ponds, coal pile runoff basins, and any other wastewater related infrastructure as described in the updated CP required at Condition 35 and the updated closure cost estimate required at Condition 39. The Permittee shall ensure that financial assurance funds will be available to implement closure if at any time the Permittee is unable, unwilling, or otherwise fails to implement any portion of the CP.

The financial assurance instrument(s), including any revised or updated financial assurance instrument(s), shall meet the requirements below.

- 1. The Permittee shall retain financial assurance in the amount necessary to cover the approved closure cost estimate until released by NMED. The Permittee shall not propose any form of self-guarantee. The financial assurance instrument(s) shall ensure that funds will be available to implement complete closure if at any time the Permittee is unable, unwilling, or otherwise fails to implement any portion of the closure plan as required by this Discharge Permit. If the financial assurance instrument(s) entails incremental costs of maintaining the instrument(s), i.e., costs for a trustee, the amount of the financial assurance shall be increased to include all such costs.
- 2. NMED shall be named as the sole beneficiary in each financial assurance instrument(s).
- 3. The Permittee shall establish a trust to receive and disburse funds, which may arise as the result of forfeiture of financial assurance. The trust shall name NMED as the beneficiary. The trust agreement shall be in a form satisfactory to the State Board of Finance and shall be subject to approval by the Governor pursuant to NMSA 1978, § 46-4-1 through 9. The trust shall be maintained until complete closure has occurred and NMED terminates any existing discharge permit in effect at the time. Upon forfeiture of financial assurance, the forfeited amount shall be deposited directly into the trust and shall be used for any activities or costs related to complete closure.
- 4. The financial assurance instrument(s) shall include a method for adjustments due to changes in inflation, new technologies, and NMED approved revisions to the closure plan based on continued investigations or other information and shall be adjusted no less frequently than every five years such that, at all times, the amount of financial assurance provided by the Permittee shall be sufficient to perform complete closure at any time during the following five years from the update.
- 5. The Permittee may request a review by NMED of remaining closure measures and associated financial assurance once every twelve months. The request for closure review and a reduction in the financial assurance amount shall describe

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	the closure measures completed and must contain a cost estimate for remaining closure measures.  NMED may require updated financial assurance as a result of changes to site conditions
	that warrant changes to the CP. Should circumstances warrant adjustments to the approved financial assurance, NMED will require them in writing and the Permittee shall make the adjustment within 180 days.
	[Subsection A of 20.6.2.3107]
41.	The Permittee shall adhere to the following stipulations for cancellation, non-renewal, forfeiture, or release of the financial assurance instrument(s).  a) Cancellation or Non-renewal: Each financial assurance instrument shall require the financial assurance provider to give at least 120 days written notice to NMED and the Permittee prior to cancellation or non-renewal of the financial assurance instrument. If NMED receives notice of cancellation or non-renewal from a financial assurance provider, the Permittee shall propose an alternate financial assurance mechanism to NMED within 30 days of the notice. If NMED approves the alternate financial assurance mechanism, the Permittee shall execute it and submit it to NMED for final acceptance within 30 days of NMED approval. If the Permittee fails to obtain alternate financial assurance acceptable to NMED within 30 days of NMED approval, the current financial assurance shall be subject to forfeiture.  b) Forfeiture: If NMED determines that implementation of all or any part of complete closure is required and that the Permittee is unable or unwilling or will otherwise fail to conduct all or any part of complete closure as required by this Discharge Permit, then NMED may proceed with forfeiture of all or part of the financial assurance.  Prior to beginning a forfeiture proceeding, NMED will provide written notice by certified mail to the Permittee and to all financial assurance providers, if applicable. The notice will inform the parties of the determination to forfeit all or a portion of the financial assurance. If NMED's access to the financial assurance is threatened due to time constraints, NMED may begin a forfeiture proceeding and provide written notice contemporaneously with that proceeding. The written notice will state the reasons for the forfeiture and the amount to be forfeited.
	The amount to be forfeited shall be based on the total cost of performing

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	complete closure in accordance with this Discharge Permit and all applicable laws and regulations. NMED will also advise the Permittee and all financial assurance providers, if applicable, of the conditions under which forfeiture may be avoided. Such conditions may include an agreement that the Permittee, a financial assurance provider, or an NMED-approved third party, will perform complete closure in accordance with this Discharge Permit and all applicable laws and regulations, and the entity has demonstrated it has the financial ability and technical qualifications to do so.
	All financial assurance forfeited shall become immediately payable to the trust or as otherwise provided in the NMED-approved instrument. Forfeited funds shall be used to perform complete closure. If the forfeited amount is insufficient, the Permittee shall be liable for the remaining costs. If the amount forfeited is more than necessary, the excess amount shall be refunded to the entity from whom it was collected.
	c) Release: The financial assurance instrument shall be released or modified when NMED determines that all activities of complete closure have been performed according to the CP requirements of this Discharge Permit and the Discharge Permit has been terminated.
	[Subsection A of 20.6.2.3107]

## E. GENERAL TERMS AND CONDITIONS

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42.	<ul> <li>RECORD KEEPING - The Permittee shall maintain a written record of the following:         <ul> <li>Information and data used to complete the application for this Discharge Permit;</li> <li>Information, data, and documents demonstrating completion of closure activities;</li> <li>Any releases (commonly known as "spills") not authorized under this Discharge Permit and reports submitted pursuant to 20.6.2.1203 NMAC;</li> <li>The operation, maintenance, and repair of all facilities/equipment used to treat, store or dispose of wastewater;</li> <li>Facility record drawings (plans and specifications) showing the actual construction of the Facility and bear the seal and signature of a licensed New Mexico professional engineer;</li> <li>Copies of logs, inspection reports, and monitoring reports completed and/or submitted to NMED pursuant to this Discharge Permit;</li> </ul> </li> </ul>

## **Terms and Conditions** • The volume of wastewater or other wastes discharged pursuant to this Discharge • Groundwater quality and wastewater quality data collected pursuant to this Discharge Permit; Copies of construction records (well log) for all sampled groundwater monitoring wells pursuant to this Discharge Permit; • The maintenance, repair, replacement or calibration of any monitoring equipment or flow measurement devices required by this Discharge Permit; and Data and information related to field measurements, sampling, and analysis conducted pursuant to this Discharge Permit, including: o the dates, location and times of sampling or field measurements; o the name and job title of the individuals who performed each sample collection or field measurement; o the sample analysis date of each sample o the name and address of the laboratory, and the name of the signatory authority for the laboratory analysis; o the analytical technique or method used to analyze each sample or collect each field measurement; o the results of each analysis or field measurement, including raw data; o the results of any split, spiked, duplicate or repeat sample; and o a copy of the laboratory analysis chain-of-custody as well as a description of the quality assurance and quality control procedures used. The Permittee shall maintain the written record at a location accessible to NMED during a Facility inspection for the lifetime of the Discharge Permit. The Permittee shall make the record available to an NMED representative upon request. [Subsections A and D of 20.6.2.3107 NMAC] 43. SUBMITTALS — The Permittee shall submit both a paper copy and an electronic copy of all notification and reporting documents required by this Discharge Permit, e.g., monitoring reports. The paper and electronic documents shall be submitted to the NMED Permit Contact identified on the Permit cover page. [Subsection A of 20.6.2.3107 NMAC] 44. INSPECTION and ENTRY – The Permittee shall allow NMED to inspect the Facility and its operations that are subject to this Discharge Permit and the WQCC regulations. NMED may upon presentation of proper credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which any maintained

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	records required by this Discharge Permit, the regulations of the federal government, or the WQCC are located.
	The Permittee shall allow NMED to have access to and reproduce for their use any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this Discharge Permit and the WQCC regulations.
	No person shall construe anything in this Discharge Permit as limiting in any way the inspection and entry authority of NMED under the WQA, the WQCC Regulations, or any other local, state or federal regulations.
	[Subsection D of 20.6.2.3107 NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]
45.	DUTY to PROVIDE INFORMATION - The Permittee shall, upon NMED's request, allow for NMED's inspection/duplication of records required by this Discharge Permit and/or furnish to NMED copies of such records.
	[Subsection D of 20.6.2.3107 NMAC]
46.	MODIFICATIONS and/or AMENDMENTS – In the event the Permittee proposes a change to the Facility or the Facility's discharge that would result in a change in the volume discharged; the location of the discharge; or in the amount or character of water contaminants received, treated or discharged by the Facility, the Permittee shall notify NMED prior to implementing such changes. The Permittee shall obtain NMED's approval (which may require modification of this Discharge Permit) prior to implementing such changes.
	[Subsection C of 20.6.2.3107 NMAC, Subsections E and G of 20.6.2.3109 NMAC]
47.	PLANS and SPECIFICATIONS — In the event the Permittee proposes to construct a wastewater system or change a process unit of an existing system such that the quantity or quality of the discharge will change substantially from that authorized by this Discharge Permit, the Permittee shall submit construction plans and specifications of the proposed system or process unit to NMED for approval prior to the commencement of construction.
	In the event the Permittee implements changes to the wastewater system authorized by this Discharge Permit that result in only a minor effect on the character of the discharge, the Permittee shall report such changes (including the submission of record drawings where applicable) to NMED prior to implementation.

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	[Subsections A and C of 20.6.2.1202 NMAC, NMSA 1978, §§ 61-23-1 through 61-23-32]		
48.	CIVIL PENALTIES - Any violation of the requirements and conditions of this Discharge Permit, including any failure to allow NMED staff to enter and inspect records or facilities, or any refusal or failure to provide NMED with records or information, may subject the Permittee to a civil enforcement action. Pursuant to WQA 74-6-10(A) and (B), such action may include a compliance order requiring compliance immediately or in a specified time, assessing a civil penalty, modifying or terminating the Discharge Permit, or any combination of the foregoing; or an action in district court seeking injunctive relief, civil penalties, or both. Pursuant to WQA 74-6-10(C) and 74-6-10.1, civil penalties of up to \$15,000 per day of noncompliance may be assessed for each violation of the WQA 74-6-5, the WQCC Regulations, or this Discharge Permit, and civil penalties of up to \$10,000 per day of noncompliance may be assessed for each violation of any other provision of the WQA, or any regulation, standard, or order adopted pursuant to such other provision. In any action to enforce this Discharge Permit, the Permittee waives any objection to the admissibility as evidence of any data generated pursuant to this Discharge Permit.		

#### [20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10 and 74-6-10.1]

#### 49. CRIMINAL PENALTIES – No person shall:

- Make any false material statement, representation, certification or omission of material fact in an application, record, report, plan or other document filed, submitted or maintained under the WQA;
- Falsify, tamper with or render inaccurate any monitoring device, method or record maintained under the WQA; or
- Fail to monitor, sample or report as required by a permit issued pursuant to a state or federal law or regulation.

Any person who knowingly violates or knowingly causes or allows another person to violate the requirements of this condition is guilty of a fourth-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who is convicted of a second or subsequent violation of the requirements of this condition is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition or knowingly causes another person to violate the requirements of this condition and thereby causes a substantial adverse environmental impact is guilty of a third-degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15. Any person who knowingly violates the requirements of this condition and knows at the time of the violation that he is creating a substantial danger of death

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	or serious bodily injury to any other person is guilty of a second degree felony and shall be sentenced in accordance with the provisions of NMSA 1978, § 31-18-15.
	[20.6.2.1220 NMAC, NMSA 1978, §§ 74-6-10.2.A through 74-6-10.2.F]
50.	COMPLIANCE with OTHER LAWS - Nothing in this Discharge Permit shall be construed in any way as relieving the Permittee of the obligation to comply with any other applicable federal, state, and/or local laws, regulations, zoning requirements, nuisance ordinances, permits or orders.
	[NMSA 1978, § 74-6-5.L]
51.	RIGHT to APPEAL - The Permittee may file a petition for review before the WQCC on this Discharge Permit. Such petition shall be in writing to the WQCC within thirty days of the receipt of postal notice of this Discharge Permit and shall include a statement of the issues raised and the relief sought. Unless the Permittee files a timely petition for review, the decision of NMED shall be final and not subject to judicial review.
	[20.6.2.3112 NMAC, NMSA 1978, § 74-6-5.0]
52.	TRANSFER of DISCHARGE PERMIT - Prior to the transfer of any ownership, control, or possession of this Facility or any portion thereof, the Permittee shall:  • Notify the proposed transferee in writing of the existence of this Discharge Permit;  • Include a copy of this Discharge Permit with the notice; and  • Deliver or send by certified mail to NMED a copy of the notification and proof that the proposed transferee has received such notification.
	The Permittee shall continue to be responsible for any discharge from the Facility, until both ownership and possession of the Facility have been transferred to the transferee.  [20.6.2.3111 NMAC]
53.	PERMIT FEES – The Permittee shall be aware that the payment of permit fees is due at the time of Discharge Permit approval. The Permittee may pay the permit fees in a single payment or they may pay the fee in equal installments on a yearly basis over the term of the Discharge Permit. The Permittee shall remit single payments to NMED no later than 30 days after the Discharge Permit issuance date. The Permittee shall remit initial installment payments to NMED no later than 30 days after the Discharge Permit issuance date; with subsequent installment payments remitted to NMED no later than the anniversary of the Discharge Permit issuance date.

#	Terms	and	<b>Conditions</b>
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Permit fees are associated with <u>issuance</u> of this Discharge Permit. No person shall construe anything in this Discharge Permit as relieving the Permittee of the obligation to pay all permit fees assessed by NMED. A Permittee that ceases discharging or does not commence discharging from the Facility during the term of the Discharge Permit shall pay all permit fees assessed by NMED. NMED shall suspend or terminate an approved Discharge Permit if the Permittee fails to remit an installment payment by its due date.

[Subsection F of 20.6.2.3114 NMAC, NMSA 1978, § 74-6-5.K]





## New Mexico Environment Department Ground Water Quality Bureau **Discharge Permit Summary**

#### **Facility Information**

Facility Name San Juan Generating Station

**Discharge Permit Number** DP-1327

**Legally Responsible Party** Sky Northup, Plant Manager

Public Service Company of New Mexico

P.O. Box 227

Waterflow, NM 87421 (505) 598-7570

#### Treatment, Disposal and Site Information

Primary Waste Type Facility Type Plant Generated Residual Wastes Energy Utility – Power Plant

#### Discharge Locations

Type	Designation	Description & Comments				
Impoundment	South Evaporation Cell#1	Synthetic Liner, receives wastewater				
Impoundment	South Evaporation Cell#2	Synthetic Liner, receives wastewater				
Impoundment	South Evaporation Cell#3	Synthetic Liner, receives wastewater				
Impoundment	South Evaporation Cell#4	Synthetic Liner, receives wastewater				
Impoundment	South Evaporation Cell#5	Synthetic Liner, receives wastewater				
Impoundment	Process Pond 1A	Soil-cement Liner, receives wastewater				
Impoundment	Process Pond 1B	Soil-cement Liner, receives wastewater				
Impoundment	Process Pond 2A	Soil-cement Liner, receives wastewater				
Impoundment	Process Pond 2B	Soil-cement Liner, receives wastewater				
Impoundment	Process Pond 3A	Synthetic Liner, receives wastewater				
Impoundment	Process Pond 3B	Synthetic Liner, receives wastewater				
Impoundment	Process Pond 3C	Synthetic Liner, receives wastewater				



## New Mexico Environment Department Ground Water Quality Bureau Discharge Permit Summary

Impoundment Coal Pile Runoff Basin 1&2		Clay Liner, receives was tewater			
Impoundment	Coal Pile Runoff Basin 3&4	Clay Liner, receives wastewater			
Impoundment Coal Pile Runoff Basin pre-pond		Clay Liner, receives wastewater			

## Flow Metering Locations

Type	Description & Comments			
Totalizing Flow Meter	One inlet line meter to Process Pond 3A			
Totalizing Flow Meters	Two inlet line meters to South Evaporation Cells			

#### Ground Water Monitoring Locations

Type	Designation	Description & Comments
Monitoring Well	MW-Westwater	
Monitoring Well	KPC	
Monitoring Well	QNT	
Borehole	M1	Normally dry
Borehole	M2	Normally dry
Monitoring Well	M3.1	
Monitoring Well	M3.2	
Monitoring Well	M3.3	
Monitoring Well	QAL1	
Monitoring Well	QAL2	
Monitoring Well	QAL3	
Monitoring Well	QAL4	
Monitoring Well	MW4	
Borehole	NEP1	Normally dry
Borehole	NEP2	Normally dry
Borehole	NEP3	
Borehole	NEP4	
Borehole	NEP5	Normally dry
Monitoring Well	CBI	
Monitoring Well	CBII	
Monitoring Well	RTWS1	
Monitoring Well	RTWE2	
Monitoring Well	RTWW2	
Piezometer	PZ-RTWW3	Depth-to-groundwater measurement only

**Depth-to-Ground Water** 10-40 feet **Total Dissolved Solids (TDS)** 9,000-25,000 mg/L



## New Mexico Environment Department Ground Water Quality Bureau **Discharge Permit Summary**

#### **Permit Information**

Original Permit Issued July 31, 2002 **Permit Renewal and Modification** June 5, 2013

**Current Action** 

Application Received Public Notice Published Permit Issued (Issuance Date)

Permitted Discharge Volume

Renewal

January 12, 2018 [not yet published] [issuance date]

1,300,000 gallons perday

#### **NMED Contact Information**

Mailing Address Ground Water Quality Bureau

P.O. Box 5469

Santa Fe, New Mexico 87502-5469

**GWQB** Telephone Number (505) 827-2900

NMED Lead Staff **Lead Staff Telephone Number** Lead Staff Email

Andrew Romero (505) 660-8624

andrewc.romero@state.nm.us